

# Economic Impacts of COVID-19 Lockdowns: An Examination of Differential Recoveries

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# Understanding the impact of lockdowns<sup>1</sup>

The global spread of COVID-19 has led to unprecedented and rapid policy responses by governments around the world. While these policies are necessary to save lives, their economic impacts are not yet fully understood.

- 1 This is especially apparent in low- and middle-income countries, where high frequency data is lacking and populations such as refugees and informal workers may be particularly at risk.
- 2 Measuring these effects is crucial to inform evidence-based policy, such as precisely targeted social protection and SME support.

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<sup>1</sup>All opinions expressed here are those of the authors and do not necessarily reflect the opinions of the EBRD. Financial support from the International Growth Centre and the Taiwan Business EBRD Technical Cooperation Fund is gratefully acknowledged.

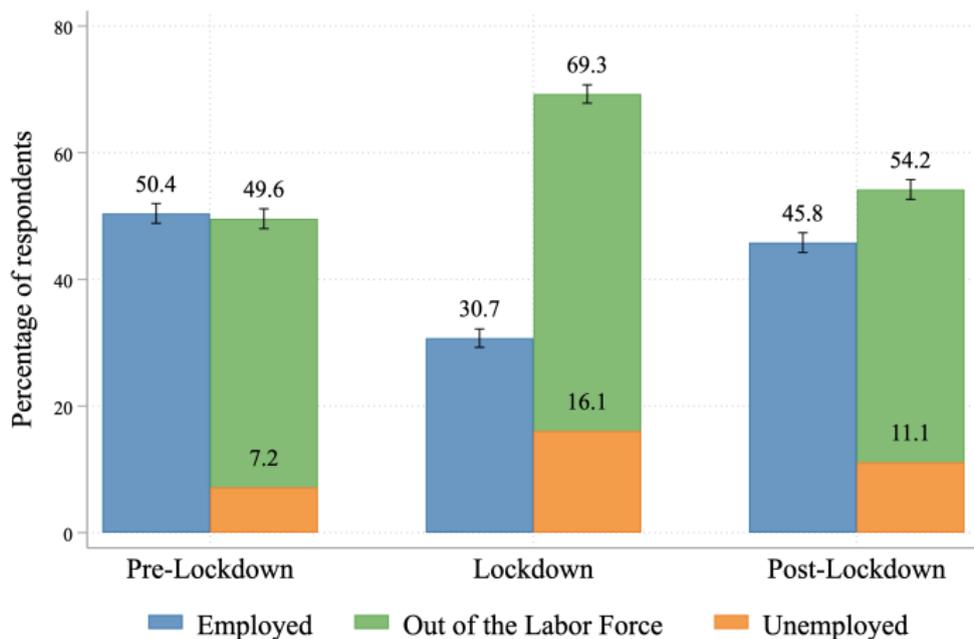
## How we examine these impacts

- 1 We conducted a phone survey of 4,000+ respondents randomly drawn from accounts on one of Jordan's largest mobile phone operators.
  - 1 Anonymized data from mobile phone activity and tower coordinates let us assign neighborhoods of likely residence for users.
  - 2 We oversample Syrians (both inside and outside refugee camps).
- 2 The survey was conducted in July-September 2020.
- 3 Questions focus on outcomes from before, during and after the strictest lockdown in Jordan (March 18th to April 15th).
- 4 We separately construct measures of mobility based on mobile phone use on the operator's network.

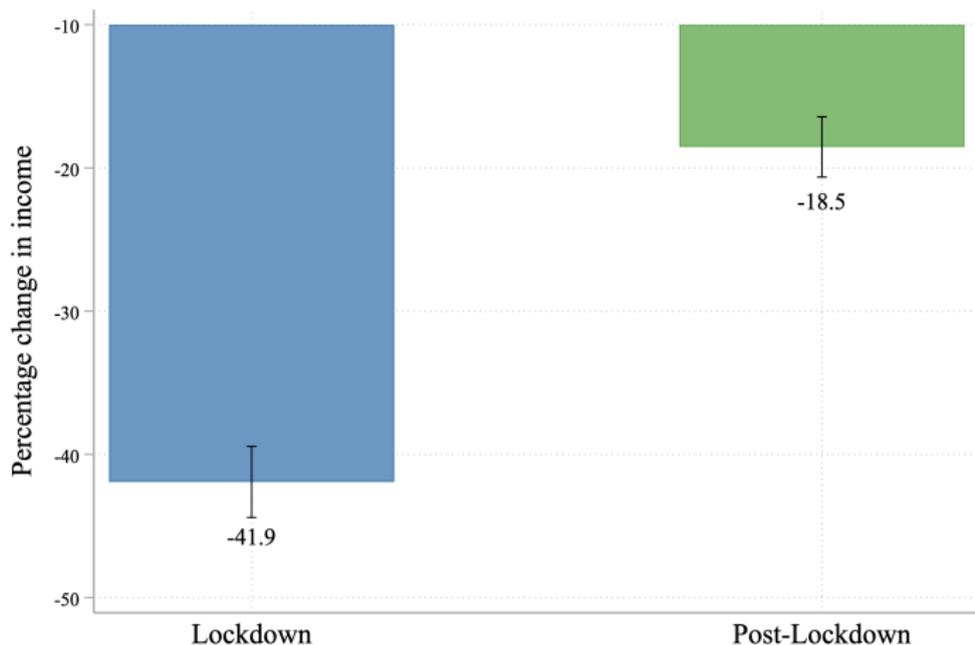
## Key take-aways

- 1 **The unemployed share of adults in Jordan increased from 7% to 16% during the lockdown that lasted from 18th March to 15th April 2020.** This share improved to 11% by September 2020.
- 2 **Wage earnings decreased by 42% of pre-pandemic baseline levels on average during lockdown.** These partially recovered by September but remained 19% below their baseline.
- 3 **Refugees experienced a particularly hard lockdown economically.** Unemployment increased, hours of work dropped to just 9% of baseline levels on average and earnings dropped.
- 4 **Refugees also experienced a shallower recovery.** Employment, hours and earnings remained well below baseline in September.
- 5 **Lockdown restrictions reduced mobility, and more so for the rich.** The number of trips taken per day (measured using mobile phone meta-data) fell on average by 57% to between 1 and 2 per day.

# Unemployment increased during lockdown, then partially recovered



## Average earnings declined substantially during lockdown, then partially recovered



*Note:* Calculations include all employees and business owners who were employed before the lockdown.

# Impact on Employment and Earnings

## ① Unemployment increased during lockdown, but partially recovered after the easing of restrictions.

- ① Prior to the initial lockdown, we estimate that the adult unemployment share stood at 7.2%
- ② During lockdown, this increased to 16%
- ③ After lockdown, this partially recovered to 11% by September.

## ② Labor earnings fell during the lockdown, but partially recovered by July - September.

- ① During lockdown, earnings fell by 42% of their baseline, on average, for workers who had been employed before the pandemic.
- ② After lockdown, earnings partially rebounded to 19% below baseline

# Lockdown exerted particularly negative impacts on refugees, both during and after

- 1 Refugees were more likely to be unemployed during lockdown
  - ▶ ...and less likely to have recovered a job by September
- 2 They faced the steepest drop in hours and earnings during lockdown
  - ▶ ...and a shallower recovery afterward
- 3 They were more likely to report food insecurities
  - ▶ ...and to report borrowing money or selling assets to cope

## Refugees faced substantial job loss during lockdown and a shallower recovery after

- 1 Refugees were 73% less likely to be employed during the lockdown than before.
  - ▶ Workers in low-wage, manual jobs experienced a similar decrease.
- 2 Refugees partially recovered after lockdown to 25% below their baseline level.
  - ▶ Low-wage workers did slightly better, recovering after lockdown to 18% below their baseline level.
- 3 For contrast, having less than a secondary education made less of a negative impact on employment during and after lockdown.
  - ▶ Lower educated workers were 51% less likely to be employed during lockdown than before it, and just 13% less likely by September.

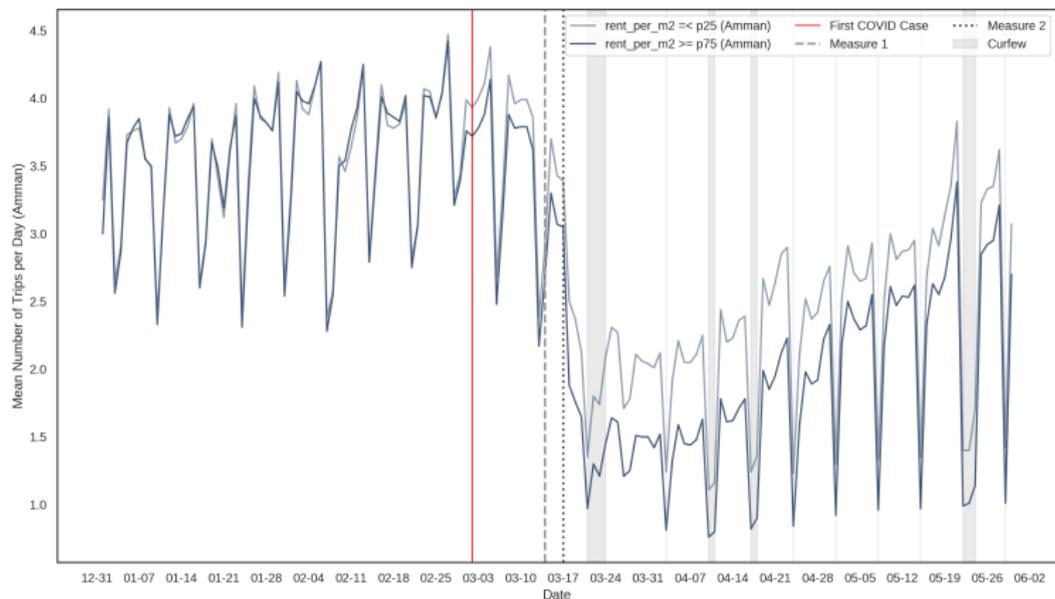
# Refugees experienced large drops in hours and earnings

- 1 Refugees experienced the sharpest reductions in hours during lockdown of any group.
  - ▶ They worked just 9% of their baseline amount of hours, on average.
- 2 Refugees recovered to 27% below their baseline hours by September.
- 3 Refugees' earning tracked their reductions in hours, on average.
  - ▶ Their earnings dropped 87% below baseline during lockdown, but recovered to only -31% by September.
- 4 Workers from other disadvantaged groups experienced similar, but less severe, impacts.

# Measuring mobility impacts using mobile phone data

- 1 We construct measures of mobility based on mobile phone use on one of Jordan's largest telecommunications networks.
- 2 Anonymized meta-data of mobile phone transactions (voice calls, SMS and data activity) and geo-coordinates of the connecting towers allow us to ...
  - 1 assign neighborhood and tower catchment area of residence for users
  - 2 detect the number of trips made by users per day.
  - 3 For the purpose of this report we identify a trip when a transaction occurs over a tower at least 1.5 km from their home tower.
- 3 Prior to lockdown, individuals typically took 3-3.5 trips per day.

# Average trips per day by users in Amman for January-June 2020, by highest and lowest $rent/m^2$ neighborhoods



## Lockdown measures reduced mobility on average

- 1 The impact of the strong lockdown measures beginning on March 17th can be clearly seen in the reduction of the average number of trips per user in the mobile phone data.
- 2 Those restrictions reduced the average number of trips per user by about 57%, down to between 1 and 2 trips per day.
- 3 The partial restrictions active from March 14th - 17th made less of an impact on mobility.
- 4 Curfews also coincide with sharp reductions in the number of trips detected in the data.

## Wealthier neighborhoods reduced their trips more

- 1 At the onset of Covid-19 in Jordan, individuals living in richer neighborhoods reduced their number of trips with greater intensity than individuals from poorer neighborhoods.
- 2 This gap in the number of trips, on average, emerges immediately upon the first case of COVID-19 in Jordan.
  - 1 The gap actually widens during lockdown. . .
  - 2 . . . then narrows slightly upon the easing of restrictions on April 15th.
- 3 Prior to the date of the first Covid-19 case in Jordan, no discernible difference exists in the number of trips per day between these two groups of neighborhoods in Amman.

# Tracing migration, mobility and recovery into the future

- 1 Our phone survey reaches enough Syrian refugees living in camps, but also in urban settings across cities, to describe their separate experiences.
- 2 Mobile phone data analyses provide insights from high frequency data on mobility and migration reaching back several months.
- 3 Future survey rounds following the same 4,000 respondents will trace out longer term recovery for refugees and incumbent residents.

# Conclusions

- 1 **Unemployment increased dramatically during lockdown then partially recovered.** In September, unemployment remained at 11%, up from 7%, of economically active adults.
- 2 **Wage earnings decreased by 42% of pre-pandemic baseline levels on average during lockdown.** These partially recovered after lockdown but remained 19% below their baseline.
- 3 **Refugees experienced a particularly hard lockdown economically.** Unemployment increased, hours of work dropped to just 9% of baseline levels on average and earnings dropped.
- 4 **Refugees also experienced a shallower recovery.** Employment, hours and earnings remained well below baseline in September.
- 5 **Lockdown restrictions reduced mobility, and more so for the rich.** The number of trips taken fell to between 1 and 2 per day.